HEARING RESEARCH

Vol. 67, No. 1/2 May 1993

CONTENTS

A. Czibulka and I.R. Schwartz (USA)
Glial or neuronal origin of microcysts in the gerbil PVCN? 1

S. Takeuchi and P. Wangemann (USA)
Aminoglycoside antibiotics inhibit maxi-K^+ channel in single isolated cochlear efferent nerve terminals 13

D.L. Kirk and B.M. Johnstone (Australia)
Modulation of f_2-f_1: Evidence for a GABA-ergic efferent system in apical cochlea of the guinea pig 20

J.A. Kaltenbach, R.J. Meleca, P.R. Falzarano, S.F. Myers and T.H. Simpson (USA)
Forward masking properties of neurons in the dorsal cochlear nucleus: Possible role in the process of echo suppression 35

W.B. Farms, D.A. Godfrey and A. Askari (USA)
Effect of copper-deficient diet on metabolism in rat auditory structures 45

J.P. Kirsch, M.K. Money and D.B. Webster (USA)
Mice heterozygous for the deafness gene have normal auditory thresholds 51

K.I. McAnally, G.M. Clark and J. Syka (Australia, Czech Republic)
Hair cell mediated responses of the auditory nerve to sinusoidal electrical stimulation of the cochlea in the cat 55

J. Popelář and J. Syka (Czech Republic)
Middle latency responses to electrical stimulation of the auditory nerve in unanaesthetized guinea pigs 69

S. Kawamata and Y. Igarashi (Japan)
Glycoconjugates in the cochlea as revealed by the silver methenamine method 75

Y. Igarashi, S. Kawamata and K. Mizukoshi (Japan)
Glycoconjugates in the vestibular organs as revealed by the silver methenamine method 83

M. Sams, M. Hämäläinen, R. Hari and L. McEvoy (Finland)
Human auditory cortical mechanisms of sound lateralization: I. Interaural time differences within sound 89

L. McEvoy, R. Hari, T. Imada and M. Sams (Finland)
Human auditory cortical mechanisms of sound lateralization: II. Interaural time differences at sound onset 98

C. Griguer, J. Lehouelleur, J. Valat, A. Sahuquet and A. Sans (France)
Voltage dependent reversible movements of the apex in isolated guinea pig vestibular hair cells 110

E.M. Burns, W.A. Harrison, J.C. Bulen and D.H. Keefe (USA)
Voluntary contraction of middle ear muscles: Effects on input impedance, energy reflectance and spontaneous otoacoustic emissions 117

E. Bartsch and S. Schmidt (FRG)
Psychophysical frequency modulation thresholds in a FM-bat, *Tadarida brasiliensis* 128

G.B. Avinash, A.L. Nuttall and Y. Raphael (USA)
3-D analysis of F-actin in stereocilia of cochlear hair cells after loud noise exposure 139

J.J. Fitzgerald, D. Robertson and B.M. Johnstone (Australia)
Effects of intra-cochlear perfusion of salicylates on cochlear microphonic and other auditory responses in the guinea pig 147

Contents continued on page 238

0378-5955(199305)67:1/2;1-S

HEARING RESEARCH

Vol. 67, No. 1/2 May 1993

CONTENTS

A. Czibulka and I.R. Schwartz (USA)
Glial or neuronal origin of microcysts in the gerbil PVCN? 1

S. Takeuchi and P. Wangemann (USA)
Aminoglycoside antibiotics inhibit maxi-K^+ channel in single isolated cochlear efferent nerve terminals 13

D.L. Kirk and B.M. Johnstone (Australia)
Modulation of f_2-f_1: Evidence for a GABA-ergic efferent system in apical cochlea of the guinea pig 20

J.A. Kaltenbach, R.J. Meleca, P.R. Falzarano, S.F. Myers and T.H. Simpson (USA)
Forward masking properties of neurons in the dorsal cochlear nucleus: Possible role in the process of echo suppression 35

W.B. Farms, D.A. Godfrey and A. Askari (USA)
Effect of copper-deficient diet on metabolism in rat auditory structures 45

J.P. Kirsch, M.K. Money and D.B. Webster (USA)
Mice heterozygous for the deafness gene have normal auditory thresholds 51

K.I. McAnally, G.M. Clark and J. Syka (Australia, Czech Republic)
Hair cell mediated responses of the auditory nerve to sinusoidal electrical stimulation of the cochlea in the cat 55

J. Popelář and J. Syka (Czech Republic)
Middle latency responses to electrical stimulation of the auditory nerve in unanaesthetized guinea pigs 69

S. Kawamata and Y. Igarashi (Japan)
Glycoconjugates in the cochlea as revealed by the silver methenamine method 75

Y. Igarashi, S. Kawamata and K. Mizukoshi (Japan)
Glycoconjugates in the vestibular organs as revealed by the silver methenamine method 83

M. Sams, M. Hämäläinen, R. Hari and L. McEvoy (Finland)
Human auditory cortical mechanisms of sound lateralization: I. Interaural time differences within sound 89

L. McEvoy, R. Hari, T. Imada and M. Sams (Finland)
Human auditory cortical mechanisms of sound lateralization: II. Interaural time differences at sound onset 98

C. Griguer, J. Lehouelleur, J. Valat, A. Sahuquet and A. Sans (France)
Voltage dependent reversible movements of the apex in isolated guinea pig vestibular hair cells 110

E.M. Burns, W.A. Harrison, J.C. Bulen and D.H. Keefe (USA)
Voluntary contraction of middle ear muscles: Effects on input impedance, energy reflectance and spontaneous otoacoustic emissions 117

E. Bartsch and S. Schmidt (FRG)
Psychophysical frequency modulation thresholds in a FM-bat, *Tadarida brasiliensis* 128

G.B. Avinash, A.L. Nuttall and Y. Raphael (USA)
3-D analysis of F-actin in stereocilia of cochlear hair cells after loud noise exposure 139

J.J. Fitzgerald, D. Robertson and B.M. Johnstone (Australia)
Effects of intra-cochlear perfusion of salicylates on cochlear microphonic and other auditory responses in the guinea pig 147

Contents continued on page 238

0378-5955(199305)67:1/2;1-S

M.J. Lyon and H.H. Wanamaker (USA)
Blood flow and assessment of capillaries in the aging rat posterior canal crista 157

A.K. Moon, T.A. Zwolan and B.E. Pfingst (USA)
Effects of phase duration on detection of electrical stimulation of the human cochlea 166

T. Doi and H. Ohmori (Japan)
Acetylcholine increases intracellular Ca^{2+} concentration and hyperpolarizes the guinea-pig outer hair cell 179

K.G. Pote and M.D. Ross (USA)
Utricular otoconia of some amphibians have calcitic morphology 189

M. Müller, F.-P. Wess and V. Bruns (FRG)
Cochlear place-frequency map in the marsupial *Monodelphis domestica* 198

S. Bartolami, M. Planche and R. Pujol (France)
Inhibition of the carbachol-evoked synthesis of inositol phosphates by ototoxic drugs in the rat cochlea 203

C.M. Chiong, B.J. Burgess and J.B.N. Jr. (Canada, USA)
Postnatal maturation of human spiral ganglion cells: Light and electron microscopic observations 211

R.A. Butler and A.D. Musicant (USA)
Binaural localization: Influence of stimulus frequency and the linkage to covert peak areas 220

Author Index 231

Subject Index 233

Calendar of Events 237